



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,659	05/07/2001	Markku Verkama	P-279243	5974

7590 05/15/2006
PILLSBURY WINTHROP LLP
1600 TYSONS BOULEVARD
MCLEAN, VA 22102

EXAMINER

JUNTIMA, NITTAYA

ART UNIT	PAPER NUMBER
----------	--------------

2616

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/787,659	VERKAMA ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the RCE filed on 5/1/2006.
2. Claim 4 was cancelled.
3. The objections to the claims are withdrawn in view of applicant's amendment.
4. Claims 1-3, 5-6, 8-12, and 14 remain rejected under 35 U.S.C. 102(e).
5. Claims 7 and 13 remain rejected under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 5-6, 8-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu (USPN 6,396,828 B1).

Regarding claims 1 and 12, as shown in Fig. 5, Liu teaches a method for providing Internet Protocol mobility service for a mobile station (MS 20) in a packet radio network (a packet radio network reads on elements 27-24, collectively) the method comprising:

Installing into the packet radio network (reads on elements 27-29, 30-31, 60, and 24 in Fig. 5, collectively) a foreign agent (FA 23) having an IP address.

Art Unit: 2616

Integrating the foreign agent (FA 23) into a first support node (the mobility support node 60 having a PPP server 21 and ASM integrated with FA) included in the radio packet network (col. 8, ll 30-36).

Providing a care-of-address for the mobile station (col. 4, ll 15-20 and col. 10, ll 38-43).

Using the IP address of, or provided by, the foreign agent as the mobile station's care-of-address (col. 4, ll 8-20 and col. 9, ll 38-43).

Wherein, the packet radio network is coupled to a data network (data network 16 which is the Internet) implementing Internet Protocol (col. 8, ll 50-54).

Regarding claim 2, Liu teaches that the first support node is an access node (the mobility support node 60, col. 8, ll 30-36).

Regarding claim 3, Liu teaches that the first support node is a gateway node (the FA integrated with ASM residing in the mobility support node 60, col. 8, ll 30-36).

Regarding claim 5, Liu further teaches receiving an access point name indicating a network operator (care-of-address, e.g. FA1) and a Mobile IP address (home IP address, col. 4, ll 15-20) from the mobile station (MS 20 in Fig. 5), in connection with an attach procedure (since (i) the ASM is integrated with the FA, col. 8, ll 30-36, (ii) the mobile station is registered with the ASM and the ASM registers the mobile station through the FA to the HA, col. 9, ll 20-22, (iii) the HA knows that the MS is registered at FA, col. 9, ll 38-44), therefore, the care-of-address and the mobile station's home address must be transmitted as part of the registration).

Regarding claim 6, Lie teaches that the access point name (the care-of-address and the mobile station's home address, see rejection of claim 5) is received by an access node (an access node reads on the mobility support node 60, Fig. 5, col. 8, ll 30-36) and that the access point

Art Unit: 2616

name is sent from the mobile station to a gateway node (the FA integrated with ASM residing in the mobility support node 60) (since (i) the ASM is integrated with the FA residing in the mobility support node 60, col. 8, ll 30-36, and (ii) the mobile station is registered with the ASM and the ASM registers the mobile station through the FA to the HA, col. 9, ll 20-22, therefore, the access point name is received by the mobility support node 60, and received from the mobile station to the FA integrated with ASM).

Regarding claims 8 and 14, Lie teaches receiving information from the mobile station indicating whether the mobile station requests use of the IP mobility service (the information reads on the information of the registration with the ASM of mobility support node 60 in Fig. 5 for semi-connection service or semi-dial-up service) and the receiving information is performed in connection with mobile station registration (the mobile station is registered with the ASM) (col. 9, ll 14-22, see also col. 7, ll 32-36).

Regarding claim 9, Lie teaches an arrangement (Fig. 5) for providing IP mobility service for a mobile station (MS 20), the arrangement comprising:

At least two support nodes ((i) mobility support node 60 and (ii) ASM 22 integrated with FA 23), wherein at least one support node is an access node (mobility support node 60) and at least one support node is a gateway node (ASM 22 integrated with FA 23). See col. 8, ll 30-36.

A foreign agent (FA 23) having an IP address (FA1, col. 9, ll 38-43, see also col. 4, ll 15-20) being integrated into one of the support nodes (FA is integrated with ASM 22, col. 8, ll 30-36).

Wherein, the IP address of, or provided by, the foreign agent is also the mobile's care-of-address (col. 9, ll 38-43, see also col. 4, ll 15-20).

Regarding claim 10, Lie teaches that the foreign agent is integrated into the access node (FA 23 is residing inside mobility support node 60, Fig. 5 and col. 8, ll 30-36).

Regarding claim 11, Lie teaches that the foreign agent is integrated into the gateway node (FA 23 is integrated into the ASM 22, Fig. 5 and col. 8, ll 30-36).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (USPN 6,396,828 B1) in view of Frid et al. ("Frid") (USPN 6,137,791).

Regarding claims 7 and 13, although Liu teaches a Home Location Register (HLR 29 in Fig. 5) of the packet radio network (a packet radio network reads on elements 27-24, collectively) and further teaches a HASA (col. 8, ll 36-43), Lie fails to explicitly teach storing information concerning whether the mobile station in question is allowed to use the IP mobility service in the HLR.

Frid teaches that the subscription data of a mobile station is maintained by a HLR (col. 1, ll 57-66), the HLR is used by a GLR to authenticate the mobile station for voice call connection and the subscription data must be used also by the GLR for providing authentication for the packet data connection as well (col. 8, ll 41-col. 9, ll 21, see also col. 11, ll 42-66).

Given the teaching of Frid on storing subscription information of the mobile station in the HLR and using the HLR and the subscription information to authenticate the voice/packet connection, it would have been obvious to one skilled in the art to modify the teaching of Lie to include storing information concerning whether the mobile station in question is allowed to use the IP mobility service in the HLR as recited in the claim. The motivation/suggestion to do so would have been to enable the mobile station to enter the packet mode after being authorized to utilize packet communication as taught by Frid (col. 9, ll 17-21).

Response to Arguments

10. Applicant's arguments filed 5/1/06 have been fully considered but they are not persuasive.

a) In the remarks, the applicant argues that Liu's elements 27-29, 30-31, 60, and 24 in Fig. 5, collectively, do not teach a packet radio network because the MSC and PPP server of Liu are part of a circuit-switched network, and Liu fails to disclose the claimed foreign agent in a packet radio network because FA23 of Liu is located in a land-based network.

In response, the claimed packet radio network is a network that uses packets to communicate between the mobile station and the network, which is clearly taught by Liu at col. 8, lines 58-67 ("...the ASM 22 storing means are provided for storing *packets sent to the mobile station 20*...the ASM 22 *sends the packets to the terminal*, e.g., mobile station 20...").

Regarding the remarks on the MSC being part of a circuit-switched network as opposed to a packet radio network and the usage of a PPP server to transfer packets via a circuit-switched radio network does not render Liu's circuit-switched radio network a packet radio network, these

Art Unit: 2616

characterizations are incorrect as evidently shown in one of patents issued to the applicant's assignee, i.e. USPN 5,978,386, which teaches that the MSC is part of the packet radio network (Fig. 1) and the usage of PPP to transfer packets is also part of the packet radio network (see Abstract). Therefore, as shown in Fig. 5, Liu clearly teaches a packet radio network (elements 27-29, 30-31, 60, and 24, collectively) and the foreign agent (FA 23) being integrated into a first support node (mobility support node 60) included in the packet radio network as recited in the independent claims 1 and 12. The rejection of claims 1 and 12 is maintained.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

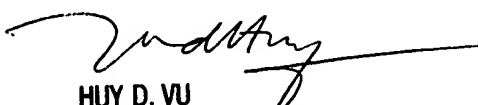
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima

May 8, 2006

NS



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600